K-STATS

Basketball's Statistics Scouting Software
User's manual

Official software of Euroleague Basketball since 2007

K-Stats User Guide
Version 2012

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1. INTRODUCTION

The Lenovo X200 Tablet supplied by Euroleague basketball to all its statistics crews can be used either with the keyboard and a mouse or with the help of a tablet pencil specific for this type of tablet. The statistician in charge of inserting the actions in the software should feel free to choose the more comfortable way for him/her to work with the tablet.

1.1 THE TABLET PENCIL

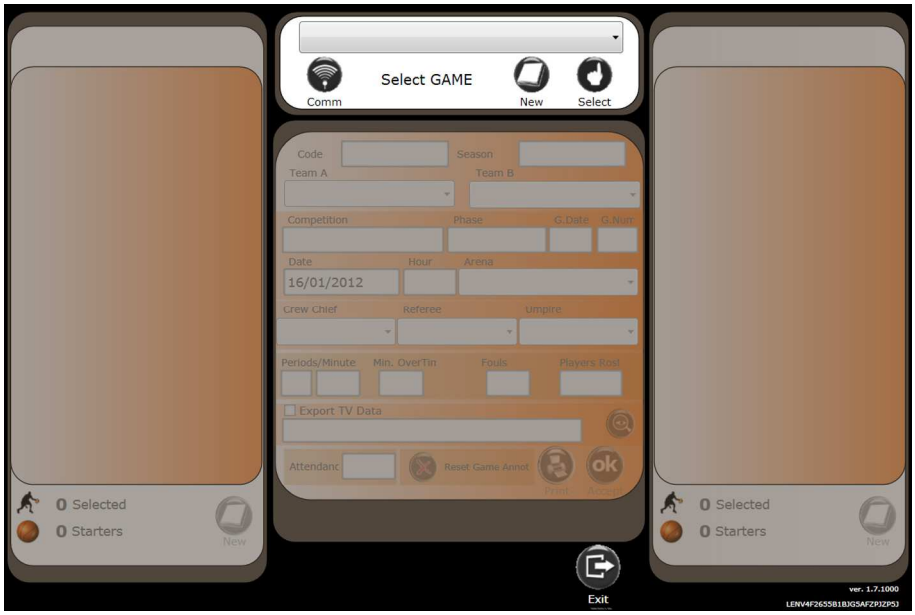
The light pencil is the tool that replaces the traditional mouse. Its usage on the screen is exactly the same as a mouse, but with an easier control and the possibility to simulate handwriting in very fast way.

The pencil has three different parts:

1. Pencil tip
2 - 3. Option Keys: the user makes double-click function by clicking the screen with the upper part of the pen (3) or the key (2) pressed, by clicking the screen with the lower part of this key pressed, the user gets the right-button function.

2. THE STATISTICS APPLICATION

The program opens up in the so-called **Game Configuration Screen**. This screen is initially empty and it's a responsibility of the operator to fill it up with all the data related to the game to be scouted: date, tip-off time, name of the tournament, teams, rosters...



How can the operator fill in all this information?

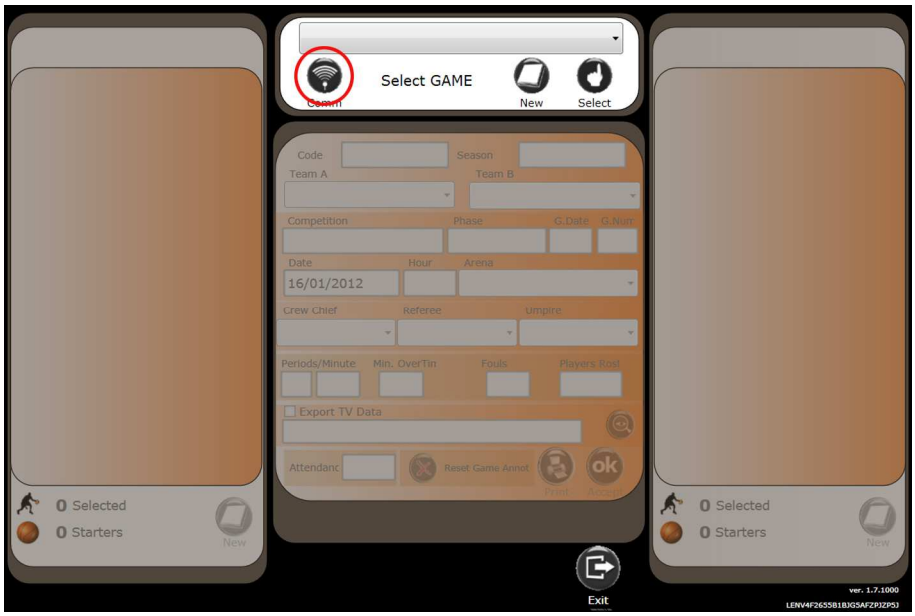
A) In case of games scheduled by the Euroleague Basketball's Competition Department and created in the Euroleague's online database by the EB Statistics & Systems Department, the information of the game will be available to be **downloaded automatically** by the operator just **by communicating with the EB's server**.

B) **In case that the game to be scouted has not been configured at the Euroleague's online database**, the software operator will have to fill in the game configuration **manually from scratch**. Anyway the data should be provided either by the Statistics or the Competition Departments of Euroleague Basketball via telephone or any "text messenger"-based software.

In order to check if the Euroleague's server has the information of a game to be scouted available and updated, the K-Stats operator must communicate with the server.

2.1 COMMUNICATION PROCESS WITH THE SERVER

The communication process **allows the software to be updated and synchronized correctly** with the Euroleague's online database. This process gets the information about players, teams, referees game data, and allows to **update the program** with new improvements and functions. To communicate with the server the user must click the button COMM:



Once the user gets to the Communication Process screen, the user must click the button START to ignite the process. **Optionally,** the user can also check the box CHECK FOR RENEW ALL DATA. **This option orders the K-Stats to delete, before communicating with the server, all the information stored in the local database of the computer** from previous games scouted in order to update it. The user must be very sure about the use of this checkbox. The **Euroleague's Stats Department recommends to check it ONCE A WEEK**, **ONLY before the start of a game**.

After clicking the START button, all the actions flow automatically.

The program writes down on the events viewer what is going on or if there is any trouble during the communication process.

When the process finishes, the program shows a message.

If the process finishes SUCCESFULLY, the user can go back to the Game Configuration screen by clicking the BACK button.

If the process did not go through properly, the program shows a WARNING ICON (for a recoverable error) or an ERROR ICON (for a non recoverable error):

Either in case that the program shows an ERROR or a WARNING message, **the user'd better contact the Euroleague's Statistics Department** in order to inform about this and wait for some instructions from the Department members to solve this situation.

2.2 GAME CONFIGURATION

After communicating succesfully with the Euroleague Basketball's server, the operator should go back to the **Game Configuration Screen**. Initially the tablet displays the Configuration Screen empty. There are two ways to fill in the configuration of a game:

- by getting all the information online from the Euroleague's internet server
- by inserting the information manually from scratch

2.2.1 GAME CONFIGURED AUTOMATICALLY

The regular communication process (section 2.1) downloads in the tablet the list of all the available games scheduled in the Euroleague's online database. By clicking the selector at the top of the Configuration screen, the whole list drops down. The user can look for the game to scout in the list, scrolling it up and down. **Once the game is highlighted, the user must click it and then click the SELECT button**:

Unicaja - Real Madrid
EA7 Emporio Armani Milan - Panathinaikos BSA Athens
FC Barcelona Regal - Bennet Cantu
Anadolu Efes Istanbul - Galatasaray Medical Park
Zalgiris Kaunas - Maccabi Electra Tel Aviv
Olympiacos Piraeus - CSKA Moscow
Montepaschi Siena - Gescrap BB
VEF Riga - CEZ Nymburk
Unics Kazan - Fenerbahce Ulker Istanbul
Benetton Basket - Alba Berlin
BCM Gravelines - Valencia Basket
Asvel Basket - BC Donetsk
KK Buducnost - Spartak St. Petersburg
Aris BSA 2003 - BC Khimki
Banvit BK - KRKA Novo Mesto
PBC Lokomotiv Kuban - Lietuvos Rytas
0 Selected
0 Starters
Exit

Automatically all the information about the game (downloaded previously through the communication with the Euroleague's Server) is displayed on different areas of the screen.

The left and right ends are occupied by the whole rosters of the two teams. **The user must select the players that are going to participate in the game** (IMPORTANT: those players whose license has been handed by the team to the table commissioner at the arena) by clicking the player's silouette at the right of the name of each player. The background of the players' name turns to green.

Around three minutes before the tip-off the table officials announce the starting fives of each team. The K-Stats user can designate them by **clicking the basketball at the left** of the player's name.

The background of the player's name turns darker. **By clicking the basketballs, the starters can be selected/deselected**, and by clicking their siloutettes the players can be selected/deselected to be part of the game. At the bottom of each roster the program shows how many players and how many starters have been selected.

In the central area of the screen there is the rest of the information related to the game except for the three drop-down referee selectors, which are empty. The user must look for the surname of each referee in each selector according to the information given by the table commissioner.

All the information in this screen is editable or changeable by the user. Apart from the referee selectors, the ATTENDANCE box is empty as well. The user must fill it in with the number of **spectators** attending the game, an information **given by the table officials**. The user can do this action during the game too. The user can also set up a path to an external computer to export the statistics for being broadcasted on TV. This point is developed further in the section ***2.2.7 Data Export for TV***.

2.2.2 GAME CONFIGURED MANUALLY

In the hypothetical case that one game

- is not available in the games list or...
- is not totally configured in the Euroleague's online database or...
- the communication with the Euroleague's server is broken, so the data cannot be downloaded

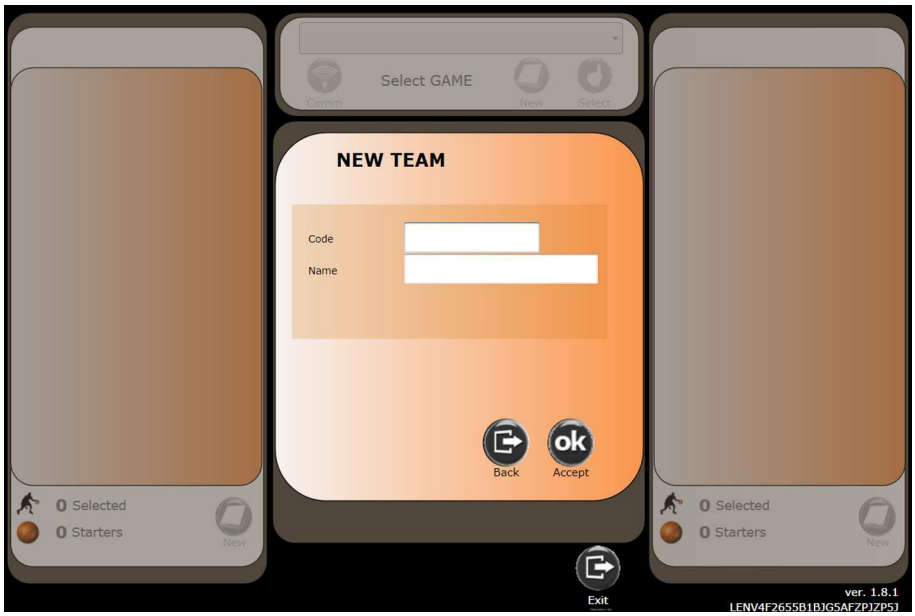
K-Stats offers the possibility to create new games from scratch. To create a new game, the user in the Game Configuration Screen must press de button NEW:

Now we can start to type the configuration data in each text box.

2.2.3 NEW TEAM

To create a NEW team, we open the drop-down teams menu and choose **the last option in the list** (New):

Once we click the NEW option, a new screen will pop up asking us for a Code and a Name of the new team.



IMPORTANT: In case the game being configured belonged to either the Euroleague or the Eurocup, the software operator MUST contact first (before inserting anything) with the EB Statistics Department **and ASK for the TEAM CODE to the Department's manager**. This way the EB Statistics Department will avoid inconsistencies in the information of the games and teams.

Once these two fields are filled, click OK and go back to the Game Configuration Screen.

2.2.4 NEW ARENA

To create a new arena, we open the drop-down arena menu and choose the last option (New):

Once we click the NEW option, a new screen will pop up asking us for a Code and a Name of the new arena, as well as its Capacity.

IMPORTANT: as in the previous point, if the game you are configurating belongs to the Euroleague or the Eurocup, contact inmediately the EB Statistics Department in order to check out this data before inserting it by yourself.

Once these two fields are filled, click OK and go back to the Game Configuration Screen.

2.2.5 NEW REFEREE

To create a new referee open each of the drop-down referee menus and choose the last option (New):

Once we click the NEW option, a new screen will pop up asking us for a Code, a Name, a Number and a three-letter country code of the new referee.

IMPORTANT: as in the previous point, if the game you are configurating belongs to the Euroleague or the Eurocup, contact inmediately the EB Statistics Department in order to check out this data before inserting it by yourself.

Once these fields are filled, click OK and go back to the Game Configuration Screen.

2.2.6 NEW PLAYER

To create a new player, **we must fisrt select a team** from the team's drop-down menu (in this case Team A: "Euroleague All Stars") and then click the NEW icon at the bottom of the roster area:

Once we click the NEW option, a new screen will pop up asking us for a Code, a Name, a Number (of the player's shirt), four extra text boxes and a three-letter country.

IMPORTANT: contact inmediately the EB Statistics Department in order to check out this data before inserting it by yourself.

Once these two fields are filled, click OK and go back to the Game Configuration Screen. **Repeat this procedure as many times as new players** you must insert in the game.

2.2.7 DATA EXPORTATION TO TELEVISION

K-Stats generates an external data file retrievable by television broadcasters to show the official statistics on real time during a TV broadcast. This exportation is made by generating a file of accumulated data with a preset format. **The name of the file is the game code with an XML extension**. I.e: the game with the euro_224 code would export a file called euro_224.xml.

IMPORTANT: in case a TV broadcaster is interested in retrieving the official statistics from our computer, before configuring the game **we must make a Network Drive** (naming it with the most unusual letters: Y, W, Z...) with **a folder of the broadcaster's computer** where we want to store the exported statistics. If you do not know how to do this, please check this video where the procedure of making and mapping a Network Drive is explained in detail:

http://www.youtube.com/watch?v=1_qp74VU5ao

The TV broadcaster should know how to do this anyway. It's **HIGHLY recommended to export the file to the TV operator's computer**, never in your own tablet as you would be forcing the operator to get into your tablet. When you select a game, the program checks if there's access to the specified path. If not, the program does not allow entering the Game Screen.

To export the data to televisions while the game is on, we must check the Export TV Data option on the Game Configuration screen.

By checking this option, a new window will pop up displaying a tree file directory where we must look for **the Network Drive in the broadcaster's computer** where we want to export the XML file with the accumulated statistics.

Once we find the Network Drive in the TV operator's computer, we select it and click OK. The Export TV Data text box will show the path to the Drive.

2.3 SCOUTING THE GAME

Once the game configuration is finished and the players (starters and bench) selected, we must go on to the GAME SCREEN by clicking the OK button.

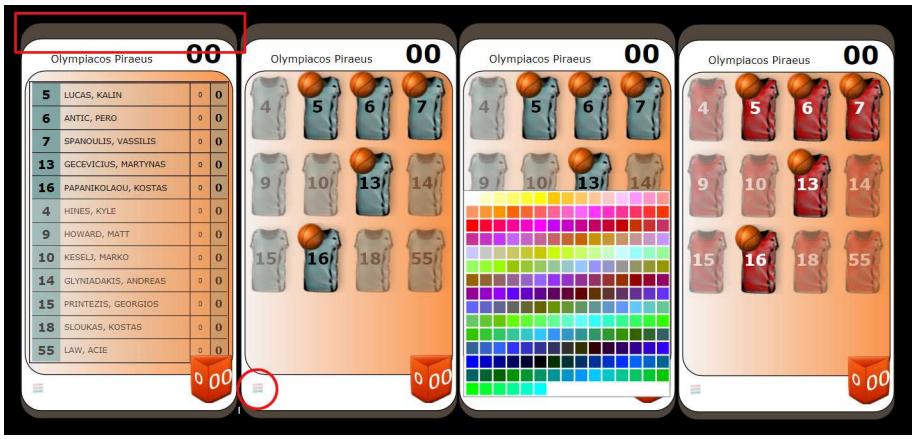
Let’s see the distribution of his screen.

We can divide the Game Screen in three columns: one column for each roster on the sides and a central column with the action buttons and text boxes to get information about the whole process (scouting and exporting).

2.3.1 THE ROSTERS

Just like on the Configuration Screen, the rosters of both teams occupy the left and right ends. The names of the players on court are brighter than the ones on the bench, ALTHOUGH **all the names are active (and clickable)** to score actions. Every line shows the number of the player, his name, the **personal fouls** he has commited and his **total points scored**.

By clicking the **dark upper corner** of a roster area, the player name's list will turn into a group of t-shirts with the number of the player on each one. The t-shirts of the players on court stand out while the t-shirts of the players on the bench are a bit blurred but also active. A small icon in the left bottom corner let us **change the colour of the t-shirts**. By clicking the corner again, we will turn back to the names list.



At the top of the roster there is the TEAM NAME, also clickable to score any team action. At the right of the team name there are the total SCORED POINTS. At the bottom, a red sign shows the number of fouls commited by the team: the fouls commited in the current period on one side and the total fouls commited in the other side.

2.3.2 THE CONTROL PANEL

The middle part of the screen is filled by a control panel divided in 5 areas.

On top of the screen there is a **text box that describes the action that the operator is going to score**.

Just below this text box, there are **a buttons panel for each statistical category**.

Below the action buttons, there is **another set of five buttons to control the time of the game**: Start, End Game, Minute (see 2.3.3), Subst (2.3.4) and print (2.3.7). There is also a clock in the middle that shows the time remaining in the current period of a game.

Below all this buttons there is a text box that constantly informs about **the data exportation process**. If the communication with the server is good, the text box will show a message in black letters ("Sending information OK..."). **In case the online communication breaks down**, the text box will show a message in red letters warning about the situation ("No connection to Server. Trying in 60 seconds..."). **The operator must inform the Euroleague's Statistics Department when a communication breakdown happens**.

13:14:05 Sending information OK ....
13:13:45 Sending information OK ....
13:13:24 Sending information OK ....
13:13:04 Sending information OK ....
13:12:44 Sending information OK ....
13:17:43 No connection to Server. Trying in 60 seconds .....
13:17:43 Error in communication: . No había ningún extremo escuchando
13:17:27 Sending information OK ....
13:17:07 Sending information OK ....
13:16:47 Sending information OK ....

During a game **it's usual to suffer just a few short breakdowns**. The operator must not panic in these situations. The program displays the warning message and some seconds later it shows the "Sending information OK..." again when the communication is recovered. **If the red warning message remains for long, then the communication is definitely lost**. This must be informed inmediately to the Euroleague's Statistics Department.

To conclude with the control panel, at the middle bottom there is the **list of the actions already inserted**, sorted chronologically from most to least recent. Every action is described by a statistical category, the number and the name of the player, the period and the time (minute - second) when the action took place.

14:10:54 Sending information OK ....
14:10:34 Sending information OK ....
14:10:13 Sending information OK ....
14:09:53 Sending information OK ....
14:09:32 Sending information OK ....
5 Turnover Olympiacos Pira 16-PAPANIKOLAOU, KOSTAS 1 1 34
4 Def Reb Olympiacos Pira 7-SPANOULIS, VASSILIS 1 1 24
3 Jumpr Att CSKA Moscow 7-LAVRINOVIC, DARJUS 1 1 20
2 Assist Olympiacos Pira 6-ANTIC, PERO 1 1 09
1 Jumpr Made Olympiacos Pira 13-GECEVICIUS, MARTYNAS 1 1 07
0 Start 1 1

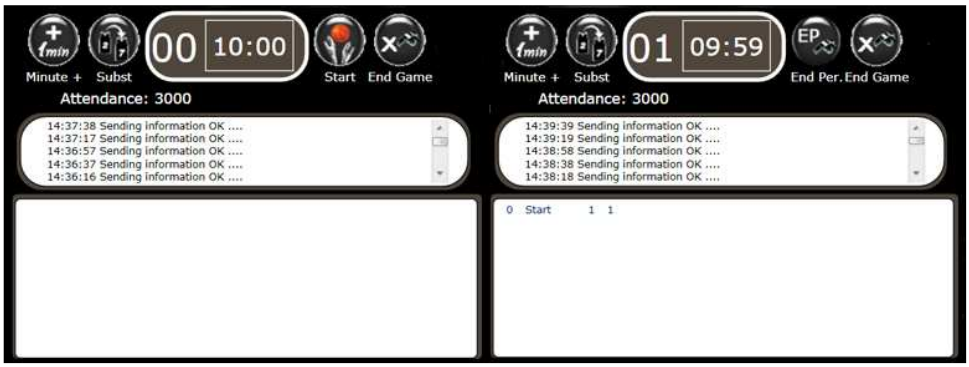
All the actions of this list **can be edited and corrected** by the operator. IMPORTANT: **We strongly suggest the correction of an action AT THE END of the game** or at Half Time, with time enough to look for the action with calm. During a game, if the operator inserts a wrong action and he realizes about it inmediately, we recommend in that case to use the **UNDO button** to delete the last action inserted.

Finally, surrounding the actions list box there are the following **action buttons**: Minute, Substitution, Start, End Game, Print, Attendance, Undo, List and Back. We will detail their use later in this manual.

2.3.3 TIME CONTROL. THE CLOCK

When the game is ready and both teams are in the middle of the court for the tip-off jump ball, the **first action to score is the start** of the game. The **Start button** must be clicked in the **very beginning of the game** and it's very important for the synchronization of future processes and actions.

< By **clicking the Start button**, the clock goes from 10:00 to 9:59, the 00 to 01 (the current period) and the Start button disappears to become the **End of Period button >**



IMPORTANT: The **clock only will start to count down** when the operator **clicks the SPACE BAR** of the keyboard.

The SPACE BAR let the operator START and STOP the clock. **The operator must stop the clock every time a referee whistles and the play be stopped**. Then the operator must check the time remaining in the scoreboard of the arena and, in case it does not match with the time remaining in the Game Screen clock of the K-Stats, **the operator can use the arrow buttons of the keyboard to add or substract seconds** from the Game Screen clock so as to get it in the same time as in the official clock.

The **+1 Min button can be used to substact one minute to the K-Stats clock** in case it is necessary. There is no button no add one minute, so the only way to make the clock go back is by using the Undo button and delete the last action of minute substraction.

When the game is resumed and the ball is alive again, **the operator must click the Space Bar to start the clock again**.

The K-Stats clock is surrounded by a line. When the clock is running, this line is kind of ORANGE colour. When the clock is stopped, the line is WHITE.

When a period finishes (the K-Stats clock will be 00:00), the operator must click the **End of Period button**, so that the clock will reset to 10:00 ready for the next period.

IMPORTANT: Start of second, third and forth (and extra) periods. When a period different from the first one starts and the official clocks begins to run, **the operator must click the SPACE BAR in order to start the clock**. There is no Start Period button.

When the game finishes, the operator must click first the End of Period button and then **WAIT FOR THE PERMISSION from the Euroleague's Statistics Department** to end the game **by clicking the End of Game button**.

2.3.4 SUBSTITUTIONS

The substitution process takes place when the game is stopped (so is the clock) and it consists in putting on the court one or more players who were on the bench and putting out of the court one or more players who were on the court. This actions must be scored **by clicking the Substitution button**.

When this button is clicked, a window pops up showing the rosters of both teams.

The operator must click the names of the players involved in the substitution in order to change the size of their ball icons. A small ball icon means that the player is going to be on the bench and a big ball icon means that the player is going to be on the court once the game is resumed.

Once the players on court are updated, the operator must click the **OK button**. The Substitution window will show the seconds left in the official clock. **If the substituions are made during the time between periods**, the program shows the option **"Check if inter period"**. By checking that square the seconds of the clock will remain 00.

To finish the substitution process the operator must click **the EQUAL button**. The substitutions let the program calculate the times played by each player, so it is very important for the operator to be very careful in carrying out this function.

2.3.5 ACTIONS

The action buttons are located in the middle of the screen. To select an action you need to select a player or a team first and then an action, no matter the order of selection. Depending on the type of action, you will also need to click the court map in the lower corner of each roster. The actions are:

Shot: this button scores made and missed shots. The operator can score these shots directly by clicking the court map of the team of the shooting player. Left-clicking the location of the shot will add a made shot to the player. Right-clicking the location of the shot, the player will be credited with a missed shot.

Personal Foul action: calls a foul on the selected player.

Drawn Foul action: indicates a foul drawn by the selected player

Missed Free Throw action

Made Free Throw action

Tip-in action: it the sum of two different actions, an offensive rebound and a shot. The operator must point the place where the player shot in the court map, like in a Shot action.

Defensive Rebound action.

Offensive Rebound action.

Blocked Shot Against action: this action is the sum of two different actions, a blocked shot against the shooter and a missed shot. The location of the shooter must be pointed on the court map.

Blocked Shot In Favour action.

Assist action.

Steal action.

Turnover action.

Other kind of fouls action. By clicking this button a second button bar opens up with buttons for: unsportsmanlike foul, technical foul and disqualifying foul.

2.3.5.1 CONTROL OF POSITION ON COURT

For actions where the selection of the position on court is required (basically SHOTS and BLOCKED SHOT AGAINST), each roster has a **court map** at the bottom of its players list like this:

The court is displayed horizontally by default. The court map can be rotated by the operator in order to help him distinguish the teams better by clicking the icon in the right upper corner.

2.3.5.2 UNDO

The UNDO button deletes the last action annotated and goes back in the timeline to the previous action. The deletion of an action only affects a single action, so in case that a click generates more than one action (a tip-in shot event, a substitution), the Delete button will erase just the last action of the sequence.

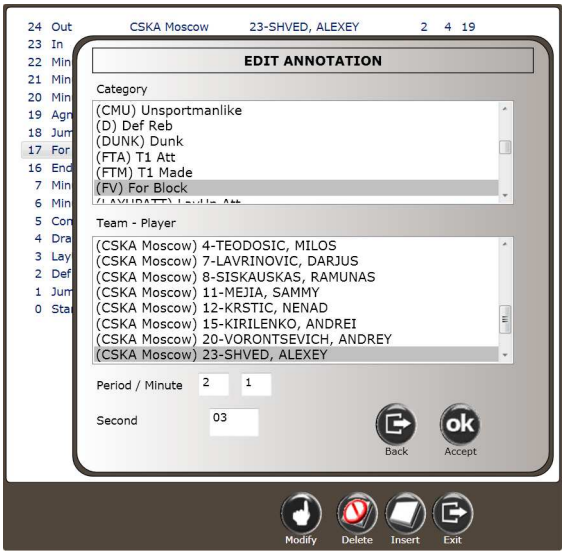
2.3.6 THE ACTIONS LIST

To insert, delete or modify annotations already inserted, the operator must open the Actions List by clicking the Actions List button.

To erase an annotation, first select it and then click the **Delete button**. The program will ask you to confirm the deletion (OK / Cancel). **To edit an annotation**, select the action and then click the **Modify button**. In this case

24 Out CSKA Moscow 23-SHVED, ALEXEY 2 4 19
23 In CSKA Moscow 4-TEODOSIC, MILOS 2 4 19
22 Minute 2 4
21 Minute 2 3
20 Minute 2 2
19 Agnst Blck Olympiacos Piraeus 6-ANTIC, PERO 2 1 03
18 Jumpr Att Olympiacos Piraeus 6-ANTIC, PERO 2 1 03
17 For Block CSKA Moscow 23-SHVED, ALEXEY 2 1 03
16 End Period 2 1
7 Minute 1 3 01
6 Minute 1 2 01
5 Comm Foul CSKA Moscow 8-SISKAUSKAS, RAMUNAS 1 1 52
4 Drawn Foul Olympiacos Piraeus 13-GECEVICIUS, MARTYNAS 1 1 52
3 LayUp Made CSKA Moscow 41-KURBANOV, NIKITA 1 1 36
2 Def Reb CSKA Moscow 23-SHVED, ALEXEY 1 1 29
1 Jumpr Att Olympiacos Piraeus 5-LUCAS, KALIN 1 1 25
0 Start 1 1
Modify
Delete
Insert
Exit

A new edition window will pop up to let us change: the action category, the player involved in the action, and the second of the period where the action happened.



To insert a new annotation select the annotation **previous** to the one you want to insert and clilck the Insert button.

2.3.6 PRINTING THE BOXSCORE

To print the boxscore of a game click the **Print button**. A window will pop up requesting the number of copies to print. The number by default is 4. **By selecting 0** copies the boxscore will not be printed out on paper but **visualized on the screen**.

The print window let us choose if we want to print the **boxscore by period** or totally accumulated. To select a specific period, check the proper boxes at the bottom of the window.

VERY IMPORTANT. The printer to be used during the game must be **installed, configured and chosen as Default printer BEFORE starting the K-Stats** program. If no printer is configured and selected as default, the program will be unable to print.

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